

AMENDMENTS TO THE CLAIMS

Please enter the following amendments.

1. **(Currently Amended)** A structure for the construction of one of a microscale and nanoscale device, comprising
 a rigid frame supporting a diaphragm comprising a first material, the diaphragm having an opening therethrough,
 a region of a second material disposed in the opening and supported by the diaphragm,
 wherein the first material and the second material are different.
2. **(Original)** A structure as recited in claim 1, wherein the diaphragm comprises a layer of a silicon nitride.
3. **(Original)** A structure as recited in claim 1, wherein the second material comprises one of polyimides, photoresists, Parylene®, organic molecules, inorganic molecules, metal, and insulators.
4. **(Original)** A structure as recited in claim 1, wherein the second material comprises polyimide.
5. **(Original)** A structure as recited in claim 1, wherein the nanoscale device is nanopore.
6. **(Currently Amended)** A structure as recited in claim 2, wherein the silicon nitride ~~nitride~~ layer is from 100 nm to 300 nm in thickness.
7. **(Currently Amended)** A structure as recited in claim 2 ~~claim 5~~, wherein the silicon nitride layer is about 200 nm thick.

8. **(Original)** A structure as recited in claim 1, wherein the width of the diaphragm is about 40 micrometers.
9. **(Original)** A structure as recited in claim 1, wherein the diaphragm is in tension.
10. **(Original)** A structure as recited in claim 1, wherein the opening has a diameter of about 5 micrometers.

Please cancel Claims 11-20.

11. – 20. **(Canceled)**

Please add new Claims 21-30.

21. **(New)** A structure for the construction of one of a microscale and nanoscale device, comprising
 - a rigid frame supporting a diaphragm comprising a first material, the diaphragm having an opening therethrough,
 - a region of a second material disposed in the opening and supported by the diaphragm,
 - wherein the second material comprises polyimide.
22. **(New)** A structure as recited in claim 21, wherein the diaphragm comprises a layer of silicon nitride.
23. **(New)** A structure as recited in claim 21, wherein the nanoscale device is nanopore.
24. **(New)** A structure as recited in claim 22, wherein the silicon nitride layer is from 100 nm to 300 nm in thickness.

25. **(New)** A structure as recited in claim 22, wherein the silicon nitride layer is about 200 nm thick.
26. **(New)** A structure for the construction of one of a microscale and nanoscale device, comprising
a rigid frame supporting a diaphragm comprising a first material, the diaphragm having an opening therethrough,
a region of a second material disposed in the opening and supported by the diaphragm,
wherein the opening has a diameter of about 5 micrometers.
27. **(New)** A structure as recited in claim 26, wherein the diaphragm comprises a layer of a silicon nitride.
28. **(New)** A structure as recited in claim 26, wherein the second material comprises one of polyimides, photoresists, Parylene®, organic molecules, inorganic molecules, metal, and insulators.
29. **(New)** A structure as recited in claim 26, wherein the second material comprises polyimide.
30. **(New)** A structure as recited in claim 26, wherein the nanoscale device is a nanopore.